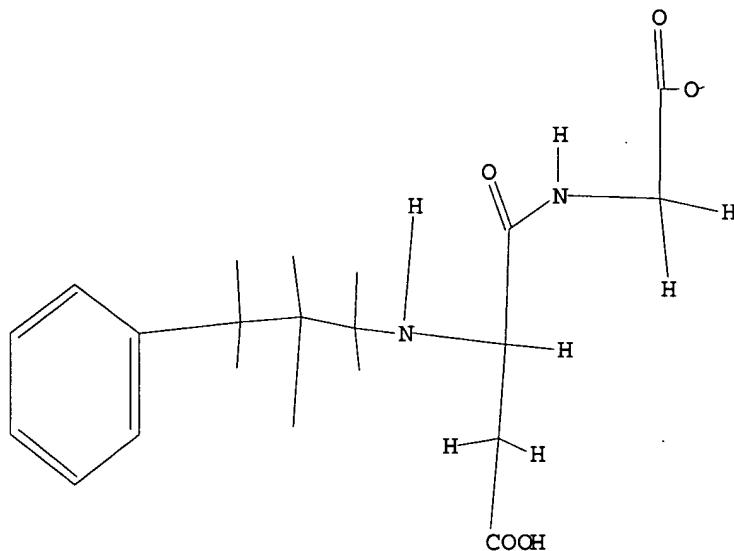


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L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full
REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 18:43:06 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 23 TO ITERATE

100.0% PROCESSED 23 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L2 0 SEA SSS FUL L1

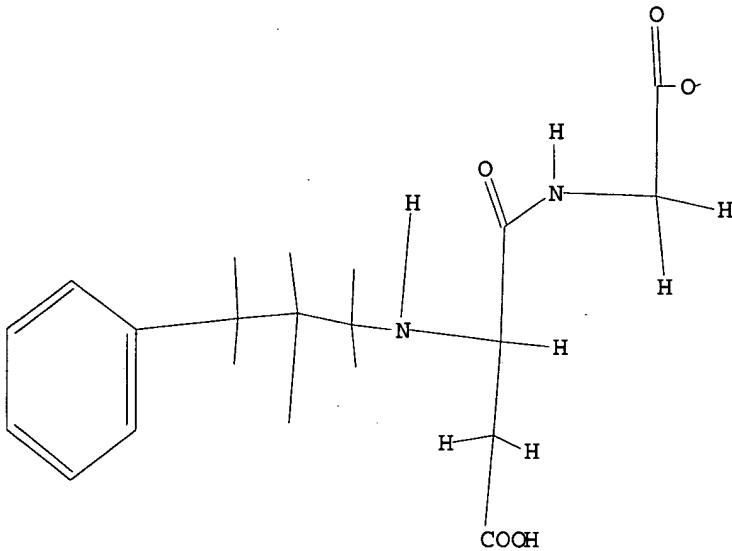
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=>
Uploading 9197.str

L1 STRUCTURE UPLOADED

=> d .11
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full
REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 18:43:06 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 23 TO ITERATE

100.0% PROCESSED 23 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L2 0 SEA SSS FUL L1

L3 0 L2

=> s n-alkylaspartyl dipeptide ester
2506833 N
4 ALKYLASPARTYL
15764 DIPEPTIDE
466024 ESTER
L4 0 N-ALKYLASPARTYL DIPEPTIDE ESTER
(N(W)ALKYLASPARTYL(W)DIPEPTIDE(W)ESTER)

=> s alkylaspartyl dipeptide ester
4 ALKYLASPARTYL
15764 DIPEPTIDE
466024 ESTER
L5 0 ALKYLASPARTYL DIPEPTIDE ESTER

(ALKYLASPARTYL DIPEPTIDE (W) ESTER)

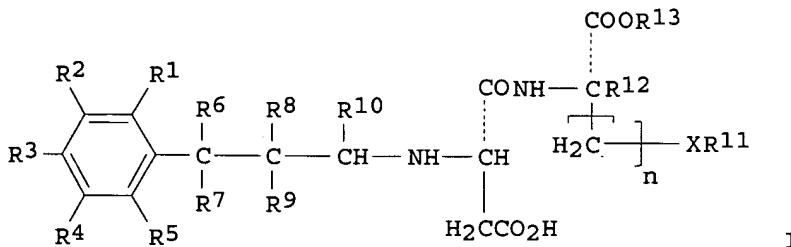
=> s n-alkylaspartyl dipeptide ester
 2506833 N
 4 ALKYLASPARTYL
 15764 DIPEPTIDE
 466024 ESTER
 L6 0 N-ALKYLASPARTYL DIPEPTIDE ESTER
 (N(W)ALKYLASPARTYL(W)DIPEPTIDE(W)ESTER)

=> s aspartyl dipeptide ester
 4430 ASPARTYL
 15764 DIPEPTIDE
 466024 ESTER
 L7 9 ASPARTYL DIPEPTIDE ESTER
 (ASPARTYL(W)DIPEPTIDE(W)ESTER)

=> d 1-9 ibib abs hitstr

L7 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2001:842307 CAPLUS
 DOCUMENT NUMBER: 135:370940
 TITLE: N-Alkylaspartyl dipeptide esters and low-calorie sweeteners containing them
 INVENTOR(S): Amino, Yusuke; Yuzawa, Kazuko
 PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001322996	A2	20011120	JP 2000-142808	20000516
OTHER SOURCE(S):	MARPAT	135:370940		
GI				



AB Sweeteners contain title compds. I (R1-R5 = H, OH, C1-3 alkoxy, C1-3 alkyl, C2-3 hydroxyalkyloxy; R6-R10 = H, C1-3 alkyl; R11 = C1-5 alkyl; R12 = H, C1-3 alkyl; R13 = C1-4 alkyl; X = O, S; n = 1, 2) or their salts. A THF soln. of 967 mg .alpha.-L-aspartyl-(S-tert-butyl)-L-cysteine Me ester was condensed with 360 mg 3-(3-hydroxy-4-methoxyphenyl)propionaldehyde in the presence of AcOH and NaB(OAc)3H at room temp. overnight to give 596 mg I (R1 = R4-R10 = R12 = H, R2 = OH, R3 = OMe, R11 = CMe3, R13 = Me, X = S, n = 1), which was 40,000 times as sweet as sucrose.

L7 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2001:833348 CAPLUS
 DOCUMENT NUMBER: 135:358168
 TITLE: Process for producing aspartyl dipeptide ester derivatives
 INVENTOR(S): Kawahara, Shigeru; Nagashima, Kazutaka; Takemoto, Tadashi
 PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int'l Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085761	A1	20011115	WO 2001-JP3479	20010423
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: JP 2000-137028 A 20000510

OTHER SOURCE(S): CASREACT 135:358168; MARPAT 135:358168

AB This document discloses a process for conveniently producing on an industrial scale in high yield N-[N-[3-(phenyl)propyl]-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester derivs., which are expected to be sweeteners, by reductively alkylating aspartame with 3-phenyl-2-propenyl aldehyde derivs. under hydrogen in the presence of a catalyst and a base.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:265445 CAPLUS

DOCUMENT NUMBER: 134:265559

TITLE: Sweetener compositions with high degree of sweetness having improved sweetness, supplements and utilization thereof

INVENTOR(S): Ishii, Shoichi

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025263	A1	20010412	WO 2000-JP6629	20000926
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
JP 2001103925	A2	20010417	JP 1999-284344	19991005
JP 2001103926	A2	20010417	JP 1999-284345	19991005

AU 2000073222 A5 20010510 AU 2000-73222 20000926

EP 1223175 A1 20020717 EP 2000-961240 20000926

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

BR 2000014492 A 20020820 BR 2000-14492 20000926

PRIORITY APPLN. INFO.: JP 1999-284344 A 19991005

JP 1999-284345 A 19991005

WO 2000-JP6629 W 20000926

OTHER SOURCE(S): MARPAT 134:265559

AB Sweetener compns. similar to sucrose are obtained by blending aspartyl dipeptide ester derivs. (I, Markush

structure claimed) such as [N-[3-(3-hydroxy-4-methoxyphenyl)propyl]-L-alpha-aspartyl]-L-phenylalanine 1-Me ester with at least one compd. selected from the group comprising saccharides and sugar alcs., in the form of solns. These derivs. I are added to improve the taste of beverages.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:265444 CAPLUS

DOCUMENT NUMBER: 134:265558

TITLE: Sweetener compositions with high degree of sweetness having improved sweetness, supplements and utilization thereof

INVENTOR(S): Ishii, Shoichi

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025262	A1	20010412	WO 2000-JP6628	20000926
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000073221	A5	20010510	AU 2000-73221	20000926
EP 1221448	A1	20020710	EP 2000-961239	20000926
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
BR 2000014454	A	20020820	BR 2000-14454	20000926
PRIORITY APPLN. INFO.:			JP 1999-283505	A 19991004
			JP 1999-283506	A 19991004
			JP 1999-284346	A 19991005
			WO 2000-JP6628	W 20000926

OTHER SOURCE(S): MARPAT 134:265558

AB Sweetener compns. similar to sucrose are obtained by blending aspartyl dipeptide ester derivs. (I, Markush structure claimed) such as N-[N-[3-(3-hydroxy-4-methoxyphenyl)propyl]-L-<alpha>-aspartyl]-L-phenylalanine 1-Me ester with at least one compd. selected from the group comprising aspartame, saccharides, sugar alcs. and oligosaccharides, so as to enhance the taste of I. These derivs. I are added to improve the taste of beverages and pharmaceuticals.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:15228 CAPLUS

DOCUMENT NUMBER: 132:63481

TITLE: Novel aspartyl dipeptide

ester derivatives as sweeteners

INVENTOR(S): Amino, Yusuke; Yuzawa, Kazuko; Takemoto, Tadashi; Nakamura, Ryoichiro

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 20000000508	A1	20000106	WO 1999-JP3050	19990607
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2336133	AA	20000106	CA 1999-2336133	19990607
AU 9940602	A1	20000117	AU 1999-40602	19990607
AU 752473	B2	20020919		
EP 1088829	A1	20010404	EP 1999-923954	19990607
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, LI, LU, NL, SE, MC, PT, IE, FI, RO			
BR 9911551	A	20011009	BR 1999-11551	19990607
NO 2000006627	A	20010212	NO 2000-6627	20001222
PRIORITY APPLN. INFO.:			JP 1998-180204	A 19980626
			WO 1999-JP3050	W 19990607

OTHER SOURCE(S): MARPAT 132:63481

AB The Markush structure of the **aspartyl dipeptide ester** derivs. (including salts thereof) are given, and the example is N-[N-[3-(3-hydroxy-4-methoxyphenyl)propyl]-L-.alpha.-aspartyl]-L-(.alpha.-methyl)phenylalanine 1-Me ester. These compds. are low-calorie sweeteners and are sweeter than conventional ones.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:672857 CAPLUS

DOCUMENT NUMBER: 131:272186

TITLE: Preparation of **aspartyl dipeptide ester** derivatives as sweeteners

INVENTOR(S): Amino, Yusuke; Yuzawa, Kazuko; Takemoto, Tadashi; Nakamura, Ryoichiro

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9952937	A1	19991021	WO 1999-JP1210	19990311
W:	AU, BR, BY, CA, CN, CZ, HU, IL, IN, JP, KR, MX, NO, NZ, PL, RO, RU, SK, TR, UA, US, VN			
RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2327938	AA	19991021	CA 1999-2327938	19990311
AU 9941184	A1	19991101	AU 1999-41184	19990311
AU 753110	B2	20021010		
BR 9909542	A	20001226	BR 1999-9542	19990311
EP 1070726	A1	20010124	EP 1999-932431	19990311
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, LI, LU, NL, SE, MC, PT, IE, FI, RO			
RU 2179979	C1	20020227	RU 2000-200012801219990311	
ZA 9902566	A	19991012	ZA 1999-2566	19990407
NO 2000004979	A	20001107	NO 2000-4979	20001003
PRIORITY APPLN. INFO.:			JP 1998-97701	A 19980409
			JP 1999-38190	A 19990217
			WO 1999-JP1210	W 19990311

OTHER SOURCE(S): MARPAT 131:272186

AB Novel **aspartyl dipeptide ester** derivs.

(including those in the form of a salt) having an excellent sweetening effect and usable as sweeteners such as N-[N-[3-(3-methyl-4-hydroxyphenyl)propyl]-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester and N-[N-[3-(3-hydroxy-4-methoxyphenyl)propyl]-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester (I) are prepd. Thus, I was prepd. from N-tert-butoxycarbonyl-.beta.-O-benzyl-.alpha.-L-aspartyl-L-phenylalanine Me ester and 3-benzyloxy-4-methoxycinnamaldehyde. I was 20,000-times sweeter than sucrose.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:222092 CAPLUS
DOCUMENT NUMBER: 108:222092
TITLE: Enzyme-catalyzed selective ester hydrolysis of aspartyl and glutamyl dipeptide benzyl esters
AUTHOR(S): Chen, Shui Tein; Wang, Kung Tsung
CORPORATE SOURCE: Inst. Biochem. Sci., Natl. Taiwan Univ., Taipei, Taiwan
SOURCE: Journal of Chemical Research, Synopses (1987), (9), 308-9
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 108:222092
AB Treatment of dipeptide esters Boc-X(Bzl)-X1(Bzl)-OBzl (Boc = Me₃CO₂C, Bzl = PhCH₂, X, X1 = Asp or Glu) with Alcalase in aq. acetone at 45.degree. and pH 7.5 gave Boc-X(Bzl)-X1(Bzl)-OH in 52-83% yield.

L7 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:536391 CAPLUS
DOCUMENT NUMBER: 87:136391
TITLE: Aspartyl dipeptide esters
INVENTOR(S): Fujino, Masahiko; Wakimasu, Mitsuhiro; Mano, Mitsuhiro; Nishimura, Osamu; Nakajima, Nobuo; Aoki, Hisashi
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51095017	A2	19760820	JP 1976-5536	19760120
JP 59029069	B4	19840718		

AB Dipeptide esters HO₂CCH₂CH(NH₂)CONHCH(CO₂R)(CH₂)nR₁ (I, R = lower alkyl; n = 0, 1; R₁ = acyclic or cyclic alkylcarboxyloxy or alkyloxycarbonyl) or their salts, useful as sweetening agents, were prepd. by deblocking at the carboxyl and optionally at the amino group or by acylating H₂NCH(CO₂R)(CH₂)nR₁ with 2,5-oxazolidinediole-4-acetic acid. Thus, Me carbobenzoxy-.beta.-benzyl-L-aspartyl-L-serinate was acylated with pivaloyl chloride in C₅H₅N and the product hydrogenated over Pd black in MeOH to give 84% I (R = Me, n = 1, R₁ = O₂CCMe₃), which was .apprx.50 times as sweet as sucrose. Among 14 more I prepd. were (R, n, and R₁ given) (L-L-dipeptides when n = 1): Me, 1, CO₂CMe₃; Et, 0, cyclohexyloxycarbonyl; Et, 0, cyclopentyloxycarbonyl; Et, 0, CO₂CHEt₂.

L7 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1972:502214 CAPLUS
DOCUMENT NUMBER: 77:102214
TITLE: Reaction of aspartyl dipeptide esters with ketones
AUTHOR(S): Ariyoshi, Yasuo; Sato, Naotake
CORPORATE SOURCE: Cent. Res. Lab., Ajinomoto Co., Inc., Kawasaki, Japan
SOURCE: Bull. Chem. Soc. Jap. (1972), 45(7), 2015-18
DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB H-L-.alpha.-Asp-L-Q-OR [I; Q = Phe, Tyr, .beta.-cyclohexyl-Ala, .beta.-(4-hydroxycyclohexyl)-Ala; R = Me, Et] reacted with Me₂CO, MeCOEt, and cyclohexanone in the absence of catalyst to give the 4-imidazolidinone derivs. (II; R, R₁ = Me, Et; R₂ = Ph, p-HOC₆H₄, cyclohexyl, 4-hydroxycyclohexyl) and the spiro compd. (III). In soln., II (R = R₁ = Me, R₂ = Ph) assumes a folded conformation in which the aromatic ring faces the imidazolidine ring. In boiling H₂O, II and III were hydrolyzed to the corresponding I. The .beta.-isomers of I did not react with ketones under the same conditions; this difference in reactivity was used to sep. mixts. of .alpha.-and .beta.-aspartyl peptides.